

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Application No. 09/771,436

Attorney Docket No. Q62839

IN THE CLAIMS.

1. (Amended) A method for identifying the current route of paths in a telecommunications MS-SPRINGS network, the MS-SPRING network comprising:

network elements or nodes, each node comprising a controller, the controller comprising controller status;

fiber optic spans interposed between the network elements to form a ring, each network element being connected to adjacent network elements through said fiber optic spans allowing a bidirectional communication therebetween;

at least one path connecting two or more network elements of the ring, the at least one path, in a network free-of-failure condition, following a corresponding at least one Path Nominal Route;

a network manager; and

a mechanism for protecting traffic travelling in the network, said protection mechanism being shared in the network and being operated by the network manager,

the method comprising ~~the steps of~~:

(a) providing the network manager with information relating to the Nominal Route of the at least one path; and

(b) providing the network manager with information of current status of the at least one network element, wherein it comprises the step of:

(c) processing, at the network manager, the information provided through steps (a) and (b) so as to calculate the current route of the at least one path.

2. (Amended) A method according to claim 1, further comprising ~~wherein it comprises the further step of identifying~~ what ~~which~~ paths ~~of the at least one path~~ are carried at a given span.

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3. (Amended) A method according to claim 1, wherein the processing step (c) comprises ~~the steps of:~~

(c1) analyzing the Path Nominal Route of the at least one path;

(c2) making a determination as to whether ~~verifying if~~ at least one of the Nominal Route spans comprises a node requesting the intervention of the protection mechanism to serve a failure or a user command resulting in a span re-routing;

when the determination is and, in the affirmative, declaring that the current route coincides with the nominal route, with a where main span being ~~spans are replaced by a spare span~~ spans.

4. (Amended) A method according to claim 3, further comprising checking for ring re-routing, when the determination in (c2) is negative, ~~wherein, should none of the nominal route spans be bounded by a node requesting the intervention of the protection mechanism to serve a failure or a user command resulting in a span re-routing, it further comprises the step of checking if by determining whether~~ at least one of the spans of the Nominal Route is bounded by a node requesting the intervention of the protection mechanism to serve a failure or a user command resulting in a ring re-routing.

5. (Amended) ~~A method~~ Method according to claim 4, further comprising ~~wherein it further comprises the step of declaring that the current route coincides with the~~ Nominal Route when the check for ring re-routing is negative ~~nominal route should none of the nominal route spans is be bounded by a node requesting the intervention of the protection mechanism to serve a failure or a user command resulting in a ring re-routing.~~

6. (Amended) A method according to claim 5, further comprising: ~~wherein, should at least one of the Nominal Route spans be bounded by a node requesting the intervention of the~~

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~~protection mechanism to serve a failure or a user command resulting in a ring re-routing, it further includes the steps of checking if~~

when the check for ring re-routing is affirmative, making a negated route ring determination as to whether any spans of the negated route comprise a ring node; and in the
when the negated route ring determination is negative, declaring that the current route coincides with the Ring Spare Route; and , or in the
when the negated route ring determination is affirmative, declaring that the current route coincides with the nominal route.

7. (Amended) A network manager able to identify the current route of paths in a telecommunications MS-SPRINGS network, the MS-SPRING network comprising:

network elements or nodes, each node comprising a controller, the controller comprising controller status;

fiber optic spans interposed between the network elements to form a ring, each network element being connected to adjacent network elements through said fiber optic spans allowing a bidirectional communication therebetween;

at least one path connecting two or more network elements of the ring, the at least one path, in a network free-of-failure condition, following a corresponding at least one Path Nominal Route; and

a mechanism for protecting traffic travelling in the network, said protection mechanism being shared in the network and being operated by the network manager,

the network manager comprising:

- (a) a memory for storing information relating to the Nominal Route of the at least one path; and
- (b) a memory for storing information of current status of the at least one network element, wherein it further comprises:

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- (c) a processor for processing the information stored at (a) and (b) so as to calculate the current route of the at least one path.
8. (Amended) A network manager according to claim 7, wherein it further comprises means for identifying the carried paths at each span.
9. (Original) A computer program comprising computer program code means adapted to perform all the steps of claim 1 when said program is run on a computer.
10. (Original) A computer-readable medium having a program recorded thereon, said computer-readable medium comprising computer program code means adapted to perform all the steps of claim 1 when said program is run on a computer.